

E 120 125 130 135 140 145 150 155 160 165 170 175 180

N 45

TYPHOON HUNT
BEST TRACK TC-32W
 13 NOV - 22 NOV 92
 MAX SFC WIND 125KT
 MINIMUM SLP 916MB

40

35

30

25

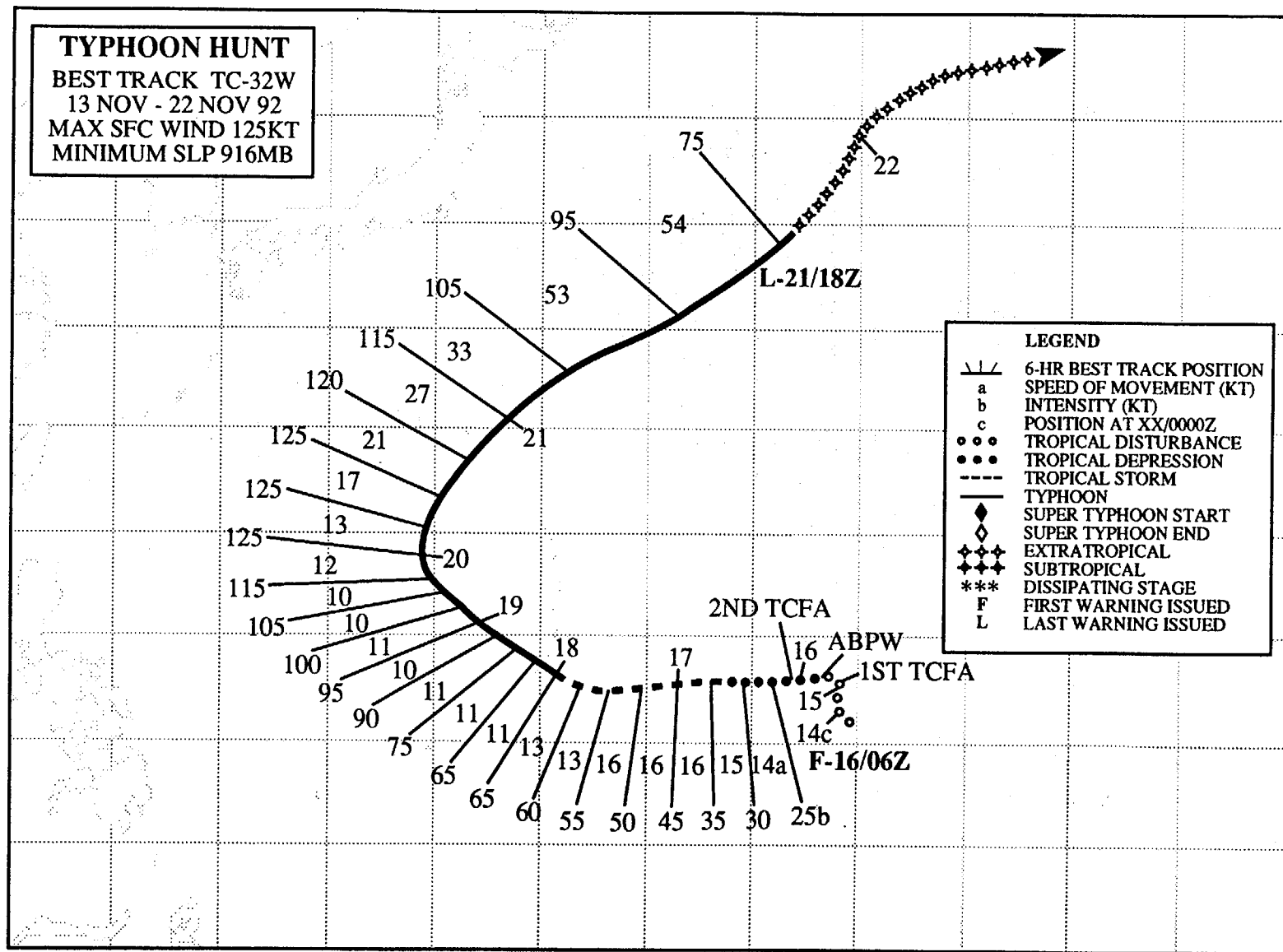
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15

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5

EQ



TYPHOON HUNT (32W)

I. HIGHLIGHTS

The fourth typhoon to pass within 60 nm (110 km) of Guam in less than three months, Hunt was part of a three storm outbreak with Tropical Storm Forrest (30W) and Gay (31W). As Hunt intensified, it brushed by Guam, moved into the Philippine Sea, and later recurved. After recurvature, the typhoon played an important role in the extremely rapid weakening of Super Typhoon Gay (31W) which was approaching the southern Mariana Islands.

II. TRACK AND INTENSITY

On 13 November, the monsoon trough extended eastward from Tropical Storm Forrest (30W) in the South China Sea, across the southern Philippines, through the Caroline Islands to a tropical disturbance in the southern Marshall Islands, and on further to the another tropical disturbance forming just to the east of the international dateline that would become Gay (31W). The tropical disturbance in the southern Marshall Islands that became Hunt was first mentioned by JTWC on the 140600Z November Significant Tropical Weather Advisory. As the cloud system associated with this disturbance slowly drifted northward, increasing convection prompted JTWC to issue the first Tropical Cyclone Formation Alert at 150400Z. Because the disturbance was slow to consolidate, the alert was reissued at 160400Z. The first warning followed at 160600Z based on the appearance of a poorly defined low-level circulation center with improved convective organization on the animated visual and infrared satellite imagery.

Tropical Depression 32W tracked westward under the steering influence of the mid-tropospheric subtropical ridge. Intensifying at an average rate of one Dvorak T-number per day, the depression was upgraded by JTWC to Tropical Storm Hunt at 170000Z. Twenty-four hours later, Hunt was further upgraded to a typhoon based on an Dvorak intensity estimate of 65 kt (33 m/sec), and convective organization that had continued to improve.

As Hunt approached Guam, it was expected to pass close to, or over, the southern portion of the island. However, to the east of the island, the typhoon changed course and began to track northwestward toward a break in the subtropical ridge. The typhoon passed 10 nm (20 km) east-northeast of Andersen AFB (WMO 91218) where a minimum sea-level pressure of 987.2 mb was recorded at 180455Z. After Hunt churned through the channel between the islands of Guam and Rota, a strong convective band crossed Guam producing two to three hours of 60 kt (31 m/sec) winds with gusts to 75 kt (39 m/sec), and heavy rain.

Continuing to intensify on its northwestward track, Hunt reached a peak of 125 kt (64 m/sec) near its point of recurvature at 200000Z (Figure 3-32-1). The typhoon's acceleration into the mid-latitude westerlies was one of the fastest noted in 1992 or any year, reaching an average 6-hour track speed of 54 kt (100 km/hr) as it transitioned into an extratropical low. (See the Super Typhoon Gay (31W) synopsis for a more complete description of Hunt's affect on Gay (31W).) The final warning for Hunt was issued by JTWC at 211800Z when Hunt became extratropical.

III. FORECAST PERFORMANCE

The overall mean track errors for JTWC were 145, 300 and 545 nm (265, 556 and 1010 km) for the 24-, 48- and 72-hour forecasts. This performance was much worse than average and was beaten by CLIPER at 48 and 72 hours. The poor overall performance resulted from several factors. First, over estimation of the strength of the subtropical ridge led to steady westward track forecasts, even after

Hunt began to move northwestward. Second, forecasters were heavily influenced by the NOGAPS guidance which had a difficult time resolving both the circulations of Typhoon Hunt and Super Typhoon Gay (31W), and erroneously indicated that Hunt would stall as Gay (31W) recurved first and accelerated into the westerlies. Finally, the greatest errors at 48 and 72 hours were due to under forecasting Hunt's unusually rapid acceleration after recurvature.

Overall intensity forecasts were good with the exception of the 72-hour extended outlooks for the first four warnings. These proved to be 45 to 50 kt (23 to 26 m/sec) too low when an anticipated increase in vertical shear did not occur, and Hunt intensified more rapidly than expected.

IV. IMPACT

In preparation for Hunt's passage on 18 November, Guam boarded up, closed schools and other government offices, evacuated aircraft, and sent ships to sea. The disaster preparations paid off. No fatalities or injuries were reported and damage appeared to minimal, however, the quantitative assessments of the minor damage caused by Hunt were not completed before Super Typhoon Gay (31W) slammed into the island five days later. As with Brian (25W) and Elsie (28W), more damage would have occurred had not Omar (15W) destroyed most of the island's weaker structures earlier on 28 August.

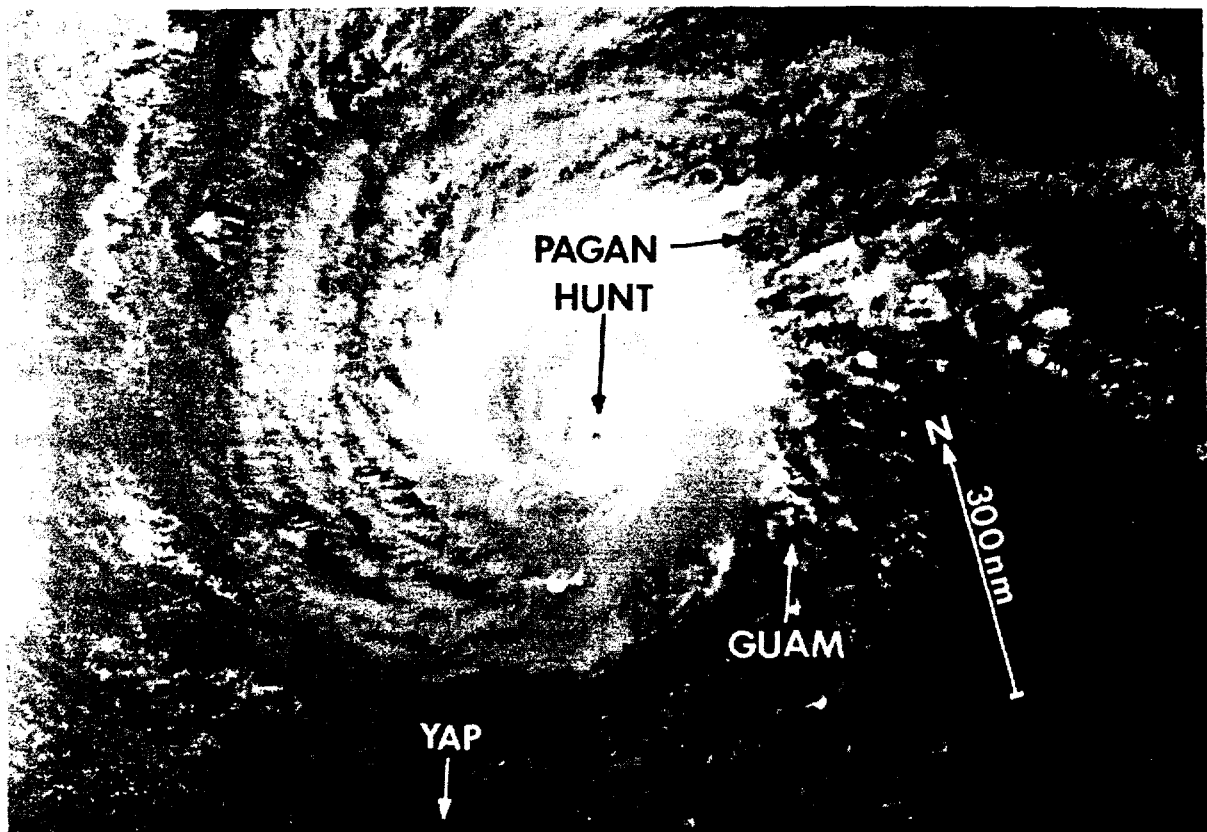


Figure 3-32-1. As Hunt intensifies, the diameter of its cloud-filled eye, which had been 14 nm (26 km) nine hours earlier, decreases to 7 nm (13 km) (182336Z November DMSP visual imagery).